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Tucchio

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[54] **BIAXIAL COMPRESSION TESTING DEVICE**

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[58] Field of Search 73/818, 819, 825, 856, 73/857, 821, 822, 823, 824

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[57] ABSTRACT

A biaxial compression testing device formed by two modified beams joined together to form an X-shape with the support structure, such as webs and upper flanges, removed in the region of the X intersection, thereby leaving a rectangular opening. The rectangular opening has dimensions slightly greater than the widths of the beams and is open from the upper surfaces downward to the lower surfaces which are joined together forming an X-configuration. This configuration has a flexing characteristic in the direction perpendicular to the plane of the joined beams. A test specimen support plate is attached to the underside of one of the upper surfaces and is located so as to slide below the opposing upper surface during flexing of the x-beam assembly. Each beam is supported by a roller pin. Additional roller pins are located on the specimen support plate between each beam upper flange and a specimen to be tested. These roller pins prevent any torsional load from reaching the test specimen. The single actuating force is applied to cause the X-beams to flex into a concave shape thereby applying a part of the actuating force axially along each beam. The configuration provides a force transfer assembly which is actuated by a single load force, but provides a biaxial load on the test specimen.

13 Claims, 7 Drawing Sheets

